

PRELIMINARY REPORT

Hurricane Enrique
12-16 July 1997

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a. Synoptic History

A tropical wave crossed Dakar, Senegal on 26 June, accompanied by a few clusters of deep convection and a well defined low-level circulation as indicated by soundings from that site. As soon as the wave moved over the tropical Atlantic Ocean, it lost most of the convection and remained as a westward-moving weak synoptic feature for about two weeks. The wave crossed Central America during the 6th and 7th of July. On the 8th, a broad low-level circulation began to form south of the Gulf of Tehuantepec. It took three more days for the thunderstorms and the circulation to consolidate. It became a tropical depression near 0600 UTC 12 July, about 850 n mi south-southwest of the southern tip of Baja California.

Once the convection clustered near the center, the depression intensified rapidly and became a hurricane by 1200 UTC 13 July. Enrique moved between west-northwest and northwest around the periphery of a high pressure system. During that period, Enrique experienced some fluctuations in intensity. The eye became an intermittent feature and these fluctuations were represented by the increasing and decreasing of both objective and subjective Dvorak T-numbers. It is estimated that the peak intensity of 100 knots and a minimum pressure of 960 mb occurred at 1800 UTC 14 July. Thereafter, the outflow became asymmetric and a weakening process began. It is estimated that Enrique was dissipating by 1800 UTC 16 July, when it became a swirl of low clouds moving over cool waters.

Enrique's track is shown in Fig. 1. Table 1 is a listing, at six-hourly intervals, of the best-track position, estimated minimum central pressure and maximum 1-minute surface wind speed.

b. Meteorological Statistics

The best track pressure and wind curves as a function of time are shown in Figs. 2 and 3 and are based on satellite intensity estimates from the Tropical Analysis and Forecast Branch (TAFB), the Satellite Analysis Branch (SAB) and the Air Force Global Weather Center (AFGWC).

c. Casualty and Damage Statistics

There are no reports of casualties or damage associated with Enrique.

d. Forecast and Warning Critique

The average official forecast error (11 forecasts) at 24 hours was 69 n mi and reached 183 n mi at 72 hours (3 forecasts). The numbers are very close to the long-term mean average errors of 194 n mi, respectively.

Figure Captions:

- Fig. 1. Best track positions for Hurricane Enrique, 12 - 16 July 1997.
- Fig. 2. Best track one-minute surface wind speed curve for Hurricane Enrique.
- Fig. 3. Best track minimum central pressure curve for Hurricane Enrique

Table 1. Best track, Hurricane Enrique. 12- 16 July, 1997

Date/Time (UTC)	Position		Pressure (mb)	Wind Speed (kt)	Stage
	Lat. (°N)	Lon. (°W)			
12/0600	8.6	111.7	1009	25	tropical depression
1200	8.9	113.4	1007	30	
1800	9.4	114.6	1005	40	tropical storm
13/0000	10.0	115.9	1000	45	"
0600	10.8	117.4	994	55	"
1200	11.6	118.9	987	65	hurricane
1800	12.4	120.3	979	80	"
14/0000	13.1	121.4	970	90	"
0600	13.8	122.4	970	90	"
1200	14.6	123.4	965	95	"
1800	15.5	124.5	960	100	"
15/0000	16.5	125.6	965	90	"
0600	17.4	126.8	975	80	"
1200	18.4	128.0	980	70	"
1800	19.3	129.4	994	60	tropical storm
16/0000	20.0	130.8	1000	45	"
0600	20.6	132.0	1004	35	"
1200	21.5	133.5	1008	30	tropical depression
1800	22.5	134.0	1009	25	dissipating
14/1800	15.5	124.5	960	100	minimum pressure

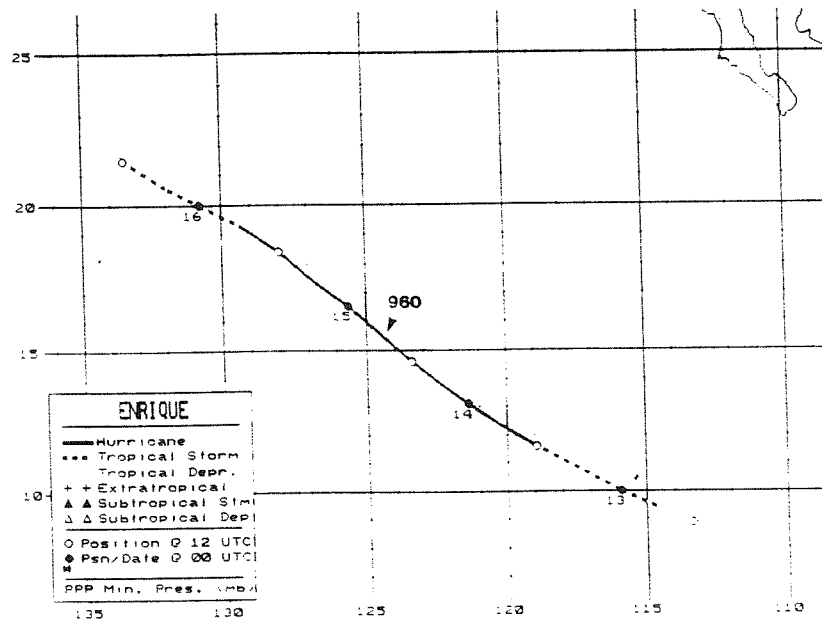


Fig. 1. Best track positions for Hurricane Enrique, 12 - 16 July 1997.

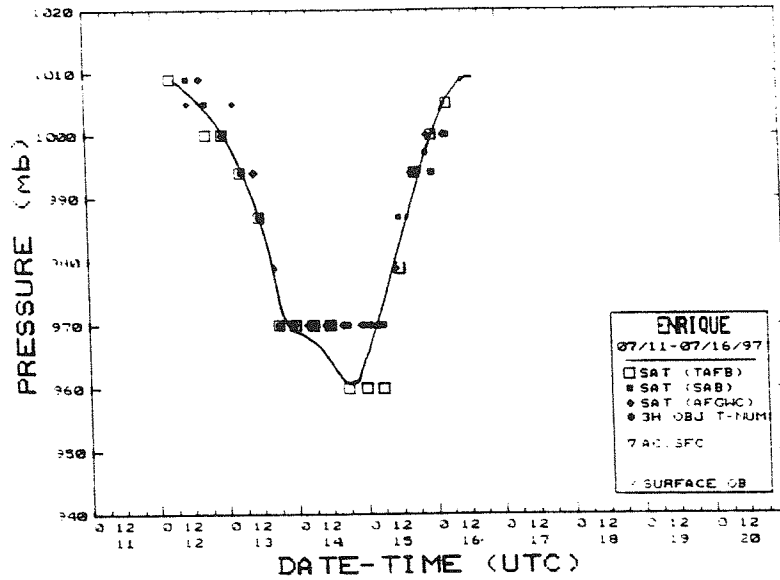


Fig. 3. Best track minimum central pressure curve for Hurricane Enrique

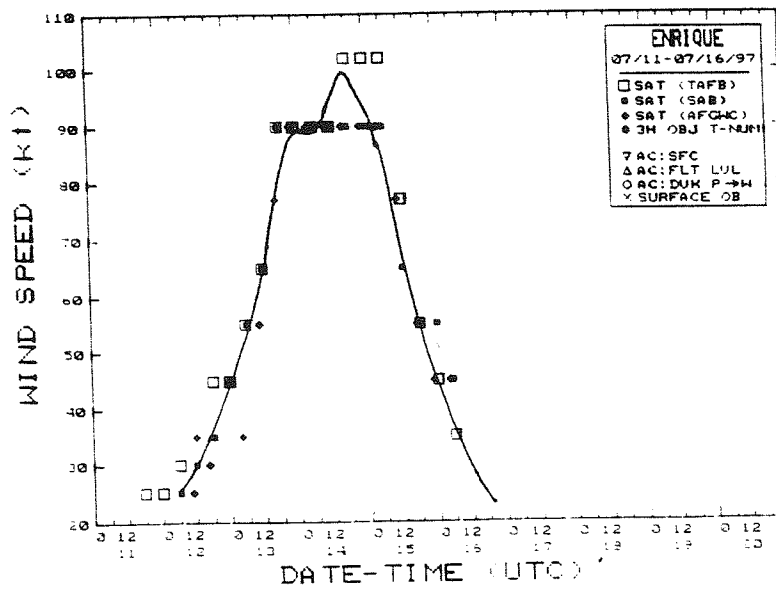


Fig. 2. Best track one-minute surface wind speed curve for Hurricane Enrique.